

AMENDMENTS

IN THE SPECIFICATION

Under 37 C.F.R. § 1.121(b), please rewrite the title as follows:

SYSTEM AND METHOD FOR FLUORESCENCE MONITORING

Also, please amend the paragraph beginning on page 34, line 10, as follows:

F1
The polymerase chain reaction was run in a 10 µl volume with 50 ng of human genomic template DNAs, 0.5 mM of each deoxynucleotide, 500 nM of each of two oligonucleotide primers GGTGGCCAATCTACTCCCAGG (SEQ ID NO:5) and GCTCACTCAGTGTGGCAAAG (SEQ ID NO:6) in a reaction buffer consisting of 50 mM Tris-HCl (pH 8.5 at 25°C), 3.0 mM magnesium chloride, 20 mM KCl, and 500 µg/ml bovine serum albumin. *Thermus aquaticus* DNA polymerase (0.4 µ) was added, the samples placed in 8 cm long, thin-walled capillary tubes (manufactured by Kimble, Kimax 46485-1), and the ends fused with a laboratory gas burner so that an air bubble was present on both ends of each tube.

IN THE CLAIMS

Under 37 C.F.R. § 1.121(c)(1)(i), please rewrite claims 13, 33, 55, 128, and 145 as follows:

- F2 SUB (G1)
13. (Thrice Amended) A system for performing PCR and monitoring the reaction during temperature cycling comprising;
- a sample container for holding a PCR sample, the sample container comprising an optically clear material, the sample container formed for holding less than 1 milliliter of a sample and having a first side, a second side, and an end;
- means for positioning the PCR sample container in a monitoring position;